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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,638	03/07/2007	Ernma Svenbrant	12400-057	2899

7590 12/09/2008
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EXAMINER

ENGLISH, JAMES A

ART UNIT	PAPER NUMBER
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4155

MAIL DATE	DELIVERY MODE
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12/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,638	Applicant(s) SVENBRANT ET AL.	
	Examiner James English	Art Unit 4155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/13/2006 and 12/20/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: The phrase “according to any of Claims 1” should be changed to “according to Claim 1.”
Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinnhuber et al. (US Patent No. 5,556,128).

Consider claim 1-2, Sinnhuber et al. discloses a side airbag (12) with a gas cushion that includes a head (13) and torso (14) compartment that are separated from each other by a transverse internal seam (15). (Fig. 2, column 3, lines 25-28.) Sinnhuber et al. further discloses the internal seam (15) contains an aperture (16) which is closable by a check valve (17). (Fig. 2, column 3, lines 28-30.) This is analogous to two superimposed layers of fabric (driver facing side and window facing side of head and torso compartment) which, when laid flat, have a substantial common area of superimposition and include a gusset (“transverse internal seam” - 15) formed between the layers to create a three-dimensional shape (the transverse internal seam having an

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aperture creates the third dimension); the airbag having an inflatable region towards the upper part of the airbag (13) and an inflatable region towards the lower part of the airbag (14), the inflatable regions being separated by a part of the airbag, when the airbag is inflated, constrained to have a thickness less than the thickness of the regions (Fig. 2). This is further analogous to the airbag including an upper chamber (13) forming the upper region and a lower chamber (14) forming the lower region, the upper chamber (13) and lower chamber (14) separated by a transversely extending seam (15).

Consider claim 8, Sinnhuber et al. discloses exit openings (19) and (20) at opposite ends of the gas generator (18) and when the gas generator is activated there is a gas flow perpendicular to the horizontal axis of symmetry and by using different types of propellant or different propellant packing densities or different gas cartridges, different filling characteristics can be established for the head (13) and torso compartment (14). (Fig. 2, column 3, lines 37-43.) This is analogous to a gas generator (18) within an airbag (12), the combination of the seam (15) and gas generator (18) substantially sealing (Fig. 2) the two chambers (13, 14) from each other, the gas generator configured to inflate the two chambers to different pressures ("different filling characteristics").

Consider claim 10, Sinnhuber et al. discloses an integral gas cushion including a head (13) and torso compartment (14). (Fig. 2, column 3, lines 25-27.) This is analogous to the two layers of fabric (driver facing side and window facing side of head and torso compartment) form part of a single fabric element ("integral gas cushion").

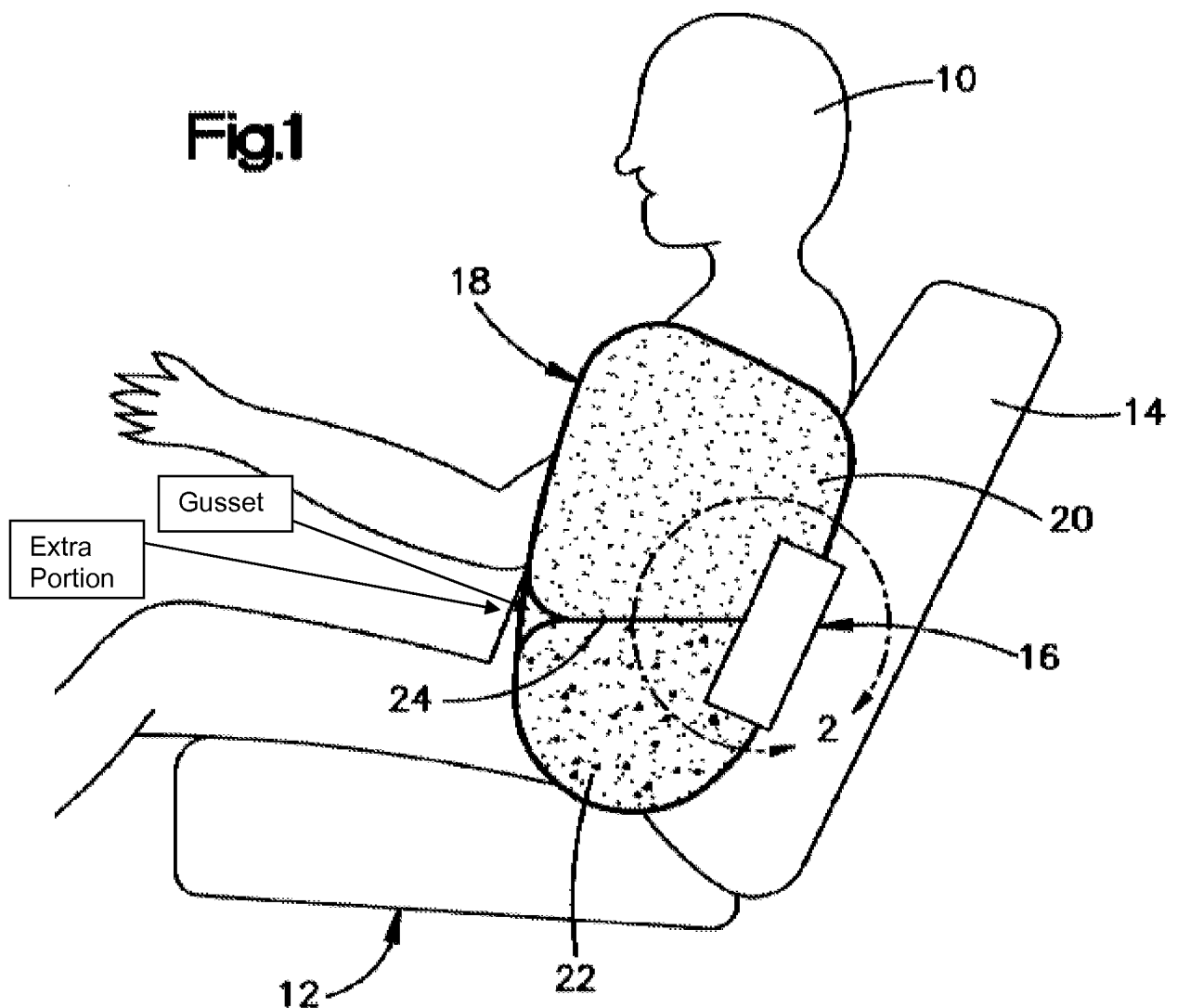
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4. Claims 1-3, and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Acker et al. (US Patent No. 6,349,964 B1).

Consider claims 1-2 and 7-8, Acker et al. discloses a side air bag (18) having a compressed gas source (16) and a first chamber (20), inflated to the side of the thorax, and a second chamber (22), inflated to the side of the pelvis. (Fig. 1, column 3, lines 40-46.) The two chambers (20, 22) have a different internal pressure and are separated from each other by a dividing seam (24). (Fig. 1, column 3, lines 46-50.) This is analogous to two superimposed layers of fabric (driver facing side and window facing side of the side airbag) which, when laid flat, have a substantial common area of superimposition and include a gusset (Modified Fig. 1 - below) formed between the layers to create a three-dimensional shape; the airbag having an inflatable region towards the upper part of the airbag (20) and an inflatable region towards the lower part of the airbag (22), the inflatable regions being separated by a part of the airbag, when the airbag is inflated, constrained to have a thickness less than the thickness of the regions (Fig. 1). This is also analogous to the airbag having an upper chamber forming the upper region (20) and a lower chamber forming the lower region (22), the upper and lower chamber being separated by a transversely extending seam (24). This is also analogous to superimposed layers of fabric having a substantial common area of superimposition, and each layer of fabric has one or more extra portions thereof which project beyond the area of superimposition (Modified Fig. 1 - below), and the peripheries of the extra portions interconnected together by means of a seam (24) to form the gusset (Modified Fig. 1 - below). This is further analogous to a gas generator

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(16) present in the airbag and the combination of the seam (24) and gas generator (16) substantially sealing the two chambers (20, 22) from each other, with the gas generator (16) configured to inflate the two chambers to different pressures.



Consider claim 3, Acker et al. discloses that at the end of the dividing seam (24) facing the compressed gas source (16), a reinforcement (28) is arranged, which prevents the tearing out of the dividing seam (24) during the inflation process and during the impact. (Fig. 2, column 4, lines 7-12.) This is analogous to the airbag formed from two layers of fabric of substantially identical configuration interconnected by means of a periphery seam, and at least one insert ("reinforcement" – 28) attached to each layer being provided in the peripheral seam between the layers to form the gusset (Modified Fig. 1 - above).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker et al. (US Patent No. 6,349,964 B1) in view of Crimmins et al. (US Patent No. 5,895,070).

Consider claim 4, Acker et al. does not teach of two inserts. Crimmins et al. teaches of a reinforcement panel (22c) sewn to the panel (22b) along sew lines from points A1-A3 and A2-A3 and a reinforcement panel (22h) aligned with point C of panels (22a) and (22b) and the three panels sewn together along sew lines A1-C-A2. (Fig. 1, column 2, lines 1-5 and 26-28.) This is analogous to two inserts ("reinforcement panels" - 22c, 22h), one insert (22c) forming a gusset with one chamber (22b) and the other

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insert (22h) forming a gusset associated with a second chamber (22a). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Acker et al. to include two inserts associated with each chamber, as taught by Crimmins et al., in order to increase the stability of the airbag.

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acker et al. (US Patent No. 6,349,964 B1) in view of Hurford (US Patent No. 5,718,450).

Consider claim 5-6, Acker et al. does not teach of a vent aperture. Hurford discloses a flow restricting flap (50) sewn over a flow orifice (48) with the flap (50) formed from material which ruptures to form enlarged pores (56) through which gas flows when subjected to an overpressure from the thorax chamber (42). (Fig. 4-6, column 5, lines 47-48, 66-67 and column 6, lines 1-5.) This is analogous to an insert ("flow restricting flap" – 50) with at least one vent aperture (48) that is initially sealed by means of a tear-seam. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Acker et al. to include an aperture with a vent initially sealed by a tear seam, as taught by Hurford et al., in order to improve the protection of the head/thorax region of a vehicle occupant during a side impact collision. (Column 2, lines 29-32.)

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker et al. (US Patent No. 6,349,964 B1) in view of Lotspih (US Patent No. 7,093,851 B2).

Consider claim 9, Acker et al. does not disclose a narrow inflated neck between the upper and lower chamber. Lotspih teaches of an expansion restraining element (62) extending partially across the width of the airbag (34) with the flow of gas controlled

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by increasing or diminishing the restraining element (62). (Fig. 5, column 4, lines 57-59 and column 6, lines 29-32.) This is analogous to a narrow inflated neck between the upper (52) and lower (50) chamber. (Fig. 5.) It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Acker et al. to incorporate a restraining element that did not seal off the upper chamber from the lower chamber as described in Lotspih to provide highly efficient occupant safety. (Column 2, lines 65-67.)

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Acker et al. (5,803,485) discloses a compensation duct (Fig. 10) and Tanase et al. (6,997,473 B2) discloses a gusset (Fig. 16) similar to the gusset disclosed in the application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James English whose telephone number is (571)270-7014. The examiner can normally be reached on Monday - Thursday, 7:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. E./

/James English/
Examiner, Art Unit 4155

/Thu Nguyen/
Supervisory Patent Examiner, Art Unit 4155